

C.) AMENDMENTS TO THE CLAIMS

This listing of the claims will replace all prior versions, and listings of claims in the Application.

1 – 33. (cancelled)

34. (new) A coated turbine engine component comprising:

an airfoil section, the airfoil section comprising:

an airfoil substrate comprising a nickel-base superalloy and having a free sulfur content and a combined sulfur content, wherein the free sulfur content plus the combined sulfur content equals total sulfur content, wherein the free sulfur content is more than 0 but less than about 1 part per million by weight; and
a protective layer at a surface of the airfoil substrate.

35. (new) The component of claim 34, wherein the free sulfur content is less than 1 percent part per million by weight.

36. (new) The component of claim 35, wherein the protective layer comprises a platinum aluminide layer.

37. (new) The component of claim 36, wherein the airfoil substrate has a free sulfur content of less than 0.5 parts per million by weight.

38. (new) The component of claim 36, wherein the airfoil substrate has a free sulfur content of 0.2 parts per million by weight.

39. (new) The component of claim 36, wherein the turbine engine

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component is a turbine blade and the airfoil section is a turbine blade airfoil;

40. (new) The component of claim 36, wherein the turbine engine component is a turbine vane and the airfoil section is a turbine vane airfoil;

41. (new) The component of claim 37, wherein the turbine engine component is a turbine blade and the airfoil section is a turbine blade airfoil;

42. (new) The component of claim 37, wherein the turbine engine component is a turbine vane and the airfoil section is a turbine vane airfoil;

43. (new) The component of claim 38, wherein the turbine engine component is a turbine blade and the airfoil section is a turbine blade airfoil;

44. (new) The component of claim 38, wherein the turbine engine component is a turbine vane and the airfoil section is a turbine vane airfoil;

45. (new) A coated article, the article comprising:

a substrate, the substrate having combined sulfur and free sulfur, wherein the free sulfur plus the combined sulfur equals total sulfur, the substrate comprising a nickel-base superalloy having free sulfur content of more than 0 but less than about 1 part per million by weight and at least one scavenger element, at least some of the at least one scavenger element being chemically bound with sulfur as combined sulfur; and

a protective layer at a surface of the substrate, the protective layer comprising a platinum aluminide diffusion layer.

46. (new) The coated article of claim 45, wherein one of the at least one

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scavenger element is hafnium.

47. (new) The coated article of claim 45, wherein one of the at least one scavenger element is zirconium.

48. (new) The coated article of claim 45, wherein one of the at least one scavenger element is magnesium.

49. (new) The coated article of claim 45, wherein one of the at least one scavenger element is calcium.

50. (new) The coated article of claim 45, wherein the coated article is a component of a gas turbine engine.

51. (new) The coated article of claim 50, wherein the component is a turbine vane.

52. (new) The component of claim 50, wherein the component is a turbine blade.

53. (new) The component of claim 50, wherein the component is a turbine nozzle.

54. (new) The component of claim 50, wherein the component is a combustor liner.

55. (new) The component of claim 50, wherein the component is a turbine seal.

56. (new) The component of claim 50, wherein the component is an exhaust nozzle.

57. (new) The component of claim 50 where the component is a shroud.

58. (new) A coated article comprising:

a substrate, the substrate having a combined sulfur content and a free sulfur content, wherein the free sulfur content plus the combined sulfur content equals total sulfur content, the substrate comprising a nickel-base superalloy and having free sulfur content of more than 0 but less than 1 part per million by weight;

the substrate further including at least one scavenger element selected from the group of elements consisting of hafnium, zirconium, magnesium, calcium, and combinations thereof, wherein the at least one scavenger element is chemically bound to form the combined sulfur content; and

a protective layer at a surface of the substrate.